



WNU Course on “The World Nuclear Industry Today”

A Nuclear Technology Course
Specially designed for Turkey and Newcomer Countries



Institutional Support



In collaboration with



WNU short course on “The World Nuclear Industry Today”

CONCEPT PAPER

WNU short course on “The World Nuclear Industry Today”

**A Nuclear Technology Course
Specially designed for Turkey and Newcomer Countries**

(24-26 April 2019, Millennium Istanbul Golden Horn Hotel - Istanbul)

WNU short course on “The World Nuclear Industry Today” (A Nuclear Technology Course Specially designed for Turkey and Newcomer Countries), will be held on 24-26 April 2019 in Millennium Istanbul Golden Horn Hotel in Istanbul, by **WORLD NUCLEAR UNIVERSITY (WNU)** in local collaboration with **NUTEK Inc.** and with institutional support of **TURKISH ATOMIC ENERGY AUTHORITY (TAEK)** and **TASAM WORLD**.

INTRODUCTION

The World Nuclear University is a global network committed to enhancing international education and leadership in the peaceful uses of nuclear energy and the applications of nuclear science and technology. The WNU founding supporters are the IAEA, OECD/NEA, WANO and World Nuclear Association.

The WNU short course is an opportunity for emerging and expanding nuclear nations to host in their own country a training programme delivered by the world’s foremost experts in a cost-effective way. Since the first one in China in 2007, thirty-seven WNU short courses with about 3500 attendees have been held. These courses have been held in Argentina, Brazil, China, Jordan, Malaysia, Mongolia, Singapore, South Africa, South Korea, UAE and Turkey. Local nuclear energy associations or governmental institutions host and promote the events.

OBJECTIVE

The WNU short course on “The World Nuclear Industry Today” is designed to enhance the knowledge of attendees about the status of nuclear energy in the world today and its likely development. The course also aims to inspire attendees to further their career in this exciting and expanding field. For the participants, the expected outcomes of the WNU short courses are:

- Improved knowledge about nuclear energy in the world today;
- Recognition of how local skills and experience fit into the global nuclear picture;
- Inspiration to develop an expansive vision of where the industry can go in the future;
- Networking with nuclear professionals in their countries and with international experts.

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PARTICIPANTS

Target participants are professionals from national nuclear research centres, local nuclear industry and potential nuclear supply chain companies, regulators and representatives of governmental bodies concerned with nuclear, environmental and energy matters, university students and academia from science and engineering departments as well as legal, social and economic fields. Depending on the host organization, invitations are extended to nearby countries.

FACULTY

Leading world experts will present overviews of a full range of nuclear-related topics in an accessible way. Local experts present national capabilities in the nuclear area. Lecturers are encouraged to focus on key points and draw out relevant issues for further discussion.

METHODOLOGY

The WNU short course offers lectures with opportunities for question and answer sessions, technical tours to local nuclear facilities, working group activities to discuss the key points from the lectures and networking activities. All teaching is in English.

TOPICS

The course encompasses a range of up-to-date topics with the aim of offering essential knowledge, a global perspective and an exciting vision of the future. The curriculum is agreed with the host organization and typically covers energy demand and supply, technology, safety, project management and effective communications over about 20 hours of intensive and dynamic activity. In this course 2 round table discussions will take place:

- A) on Small Modular Reactors (SMRs) Technologies. Applications and benefits, especially for developing countries - opportunities and challenges for newcomers.
- B) Round table on the localization development activities with the role of national and international organizations.

WORKING LANGUAGE

The working language of the course is English.

Note: Programme subject to change

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PROGRAMME

1ST DAY **24 APRIL 2019 WEDNESDAY**

08.00 - 08.30 **Registration**

08.30 - 09.15 **Opening Speeches**

Necmi DAYDAY, NUTEK Chair

Agneta RISING, World Nuclear Association (WNA) General Director

State Representatives

09.15 - 09.30 **Introduction to World Nuclear University (WNU) and the Course**

Patricia WIELAND, World Nuclear University (WNU)

09.30 - 10.30 **Overview and Prospect of Global Nuclear Energy Developments (including in the MENA countries)**

Agneta RISING, World Nuclear Association (WNA)

10.30 - 11.00 **Networking and Refreshment Break | Group Photo**

11.00 - 11.45 **Nuclear Fuel Cycle and the Use of Thorium for Nuclear Energy**

Shah Nawaz AHMAD, World Nuclear Association (WNA)

11.45 - 13.00 **Lunch**

13.00 - 14:30 **Radioactivity and Radiation in Nuc. Energy: Knowledge, Experience and International Safety Regime,**

Abel Julio GONZALEZ, ARN, Argentina

14:30 - 15:00 **Networking and Refreshment Break**

15:00 - 15:30 **Effective Nuclear Communications**

Patricia WIELAND, World Nuclear University (WNU)

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15:30 - 17:30 Round Table
Small Modular Reactors (SMR's)

Coordinator

Jean-Philippe GIRARD, Nuc Advisor - Consulting, France

Speakers

Mohammad RABABAH, World Nuclear Association (WNA)
Stefano MONTI, International Atomic Energy Agency (IAEA)
Shah Nawaz AHMAD, World Nuclear Association (WNA)
Elina TEPLINSKY, Pillsbury
Necmi DAYDAY, NUTEK Inc. Consulting
Sergei MIKHEEV, Rosatom MENA

2ND DAY **25 APRIL 2019 THURSDAY**

08.45 - 09.30 Nuclear Law, Security and Non-proliferation
Shah Nawaz AHMAD, World Nuclear Association (WNA)

09.30 - 10.15 Organizational and Human Aspects of Assuring Safety and Security Culture
B. Gül GÖKTEPE, NUTEK Inc. Consulting

10.15 - 10.30 Networking and Refreshment Break

10.30 - 11.15 Turkish National Regulatory Approach to Safety, Security and Licensing
Anil B. BÖLME, Turkish Atomic Energy Authority (TAEK)

11.15 - 12.00 Nuclear Project: Economics
Milton CAPLAN, MZ Consulting, Canada

12.00 - 13.00 Lunch

13.00 - 13.45 Nuclear Project: Project Structuring and Financing
Milton CAPLAN, MZ Consulting, Canada

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13.45 - 14.30 **Contracts, Insurance, Liability**

Elina TEPLINSKY, Pillsbury

14.30 - 15.00 **Networking and Refreshment Break**

15.00 - 15.45 **Supply chain management for the nuclear industry**

Greg KASER, World Nuclear Association (WNA)

15.45 - 17.00 **Round Table**

The Localization Development Activities with the Role of National and International Organizations

Coordinator

Necmi DAYDAY, NUTEK Inc. Consulting

Speakers

Greg KASER, World Nuclear Association (WNA)

Timur GABYASH, JSC - Rusatom Energy International (REIN JSC)

Jean - Philippe GIRARD, Nu. Advisor Consulting Inc.

17.00 - 17.30 **Certificate Delivery and Closing**

NUTEK | World Nuclear University (WNU)

3RD DAY **26 APRIL 2019 FRIDAY**

09.00 - 13.00 **Technical Visit | TAEK (Turkish Atomic Energy Authority) Technology Development Department (TDD)**

(Formerly Çekmece Nuclear Research Center-ÇNAEM, Istanbul)

Afternoon **Istanbul Sightseeing Tour**

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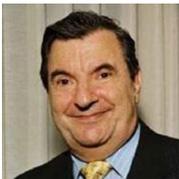
LECTURERS



Agneta RISING

World Nuclear Association (WNA) General Director

Agneta Rising became Director General of World Nuclear Association on 1 January 2013, having previously held the position of Vice President Environment at Vattenfall AB. In this post Ms. Rising headed a pan-European department focused on energy, environment and sustainability. Previously, Ms. Rising was Director for Nuclear Business Development at Vattenfall Generation.



Abel Julio GONZALEZ

ARN, Argentina

Abel Julio González is an Argentine Academician, expert on the protection against radiation and nuclear safety and security. Representative at the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR); he has served to UNSCEAR for more than 40 years. Ex-Director of the IAEA Division of Radiation Transport and Waste Safety for 20 years. Honoured with several international awards including the Morgan Award twice in 2000 and 2003, the Sievert Prize in 2004, the Lauriston S. Taylor Lecturer Award in 2005 and the Marie Curie Prize in 2008 and the Academician Georgyi A. Zedgenidze medal in 2012.



Anil B. BÖLME

Turkish Atomic Energy Authority (TAEK)

Anil B. Bölme is currently the Project Manager for the licensing of Sinop NPP. He also leads the special group for the coordination of drafting, evaluating and planning nuclear safety regulations and international agreements. He also participated in drafting nuclear liability law and new nuclear law of Turkey.

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Mr. Bölme has a BSc. and a MSc. degrees in nuclear engineering from the Hacettepe University. He started his career in the Technology Department of the Turkish Atomic Energy Authority (TAEK) in 1995. Later, his work as a member of the special group formed for site and technology selection studies has led to the selection of Sinop Site as the candidate site for Turkey’s second NPP. He also was a member of the group establishing the TAEK criteria and evaluating the Russian bid for Akkuyu NPP tender.



B. Gül GÖKTEPE
NUTEK

B. Gül Göktepe, before participating in NUTEK Inc as consultant, she was the Nuclear Attaché and Adviser to the Resident Representative of Turkey in Vienna (2011-2014). She received her BSc. from Sussex University and MSc. in Nuclear Reactor Engineering from the University of London, UK. Then she worked for the Turkish Atomic Energy Authority for many years. She was awarded with IAEA fellowship and worked in Argonne National Laboratory in USA and Chalk River Nuclear Laboratories in Canada. She developed a multipurpose training programme-NUSAC that stipulates cooperation with key authorities and stakeholders. She is known as nuclear environmentalist and received several awards including an international Black Sea medal. She is the founder and the president of WiN (Women in Nuclear) Turkey (NÜKAD) which is a chapter of the WiN Global.



Elina TEPLINSKY
Pillsbury

Elina Teplinsky is a Partner at Pillsbury Law and the lead for Pillsbury’s premier International Nuclear Projects team. Ms. Teplinsky, who spends a significant portion of her time in Istanbul, advises clients worldwide on a variety of complex nuclear transactional and regulatory issues, including advising on multi-billion dollar nuclear project contracts, structuring nuclear new build projects for bankability, understanding and mitigating nuclear liability risks, developing and implementing nuclear legal and regulatory infrastructure, negotiation and implementation of bilateral nuclear cooperation agreements. She has lead since 2013 Pillsbury’s 360 degree advice

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to Akkuyu Nukleer, the company developing the first nuclear power project in Turkey, and is advising clients on nuclear projects in the Middle East, Asia, Africa and Latin America.



Greg KASER

World Nuclear Association (WNA)

Greg Kaser has a degree in economics and politics from the University of Cambridge and began his career with the UK Atomic Energy Authority. He joined the World Nuclear Association in 2011 and has prepared three editions of its periodic market report on the nuclear supply chain and contributed to the revised report on nuclear economics. Greg’s work as the staff director for the WNA’s working groups on the supply chain and for security has developed industry thinking around learning the lessons from recent construction projects, the reform of the international export control regime, preventing the infiltration of counterfeit, fraudulent and suspect items into the supply chain, and on safety-security culture. He is currently working on good practices in risk management and in the corporate oversight of security at nuclear facilities.



Jean-Philippe GIRARD

Partner at Nuc Advisor - Consulting, France

Jean-Philippe Girard (Ph.D.), has more than 30 years of experience in research and development, operation and safety of nuclear facilities acquired as field worker, manager, operator, project manager, and regulator. He has been involved in Research and Development, start-up of NPP and has been operator of a prototype reactor. In his latest activities, he took part in new builds such as the fusion project ITER, the United Arab Emirates 4NPP project and the JRTR, a research reactor under construction in Jordan. His expertise is Safety in all stages of nuclear projects: design, construction and operation.

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Milton CAPLAN
MZ Consulting Chair, Canada

Milton Caplan, with more than 35 years in the nuclear industry, specializes in advising governments and utilities on how to increase confidence and reduce risk for nuclear projects with a focus on managing nuclear projects for success. This includes such areas as cost of nuclear plants, economic competitiveness relative to alternative technologies, structuring a project to be financeable and to minimize risk and advising on how to best select a vendor and technology. He is the chair of the WNA Economics Working Group and teaches nuclear economics, nuclear plant structuring and financing and nuclear technology.



Mohammad RABABAH
World Nuclear Association (WNA)

Mohammad Rababah has recently Joined World Nuclear Association as a project manager at CORDEL. He has worked at Jordan Atomic Energy Commission since 2014, contributing to the Jordan nuclear power plant project and then became SMR team leader. Mohammad has his master degree in nuclear energy/nuclear plant design from France at University of Paris Sud 11. He also has his bachelor degree in nuclear engineering from Jordan University of Science and Technology.



Necmi DAYDAY
NUTEK Chair

Necmi Dayday, earned a Masters degree (Cum Laude) in Nuclear Engineering at the Technical University of Istanbul (1969), a second M.Sc. degree in reactor physics at the Institute National des Sciences et Techniques Nucléaires (1971), Saclay, France. PhD. (High Honor) in reactor physics at the Faculté de Science, Centre d'Orsay Université Paris-Sud (1973). He was senior

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researcher at TAEK Çekmece Nuclear Research and Education Centre in Istanbul (1969 – 1978). He was a member of the TAEK Nuclear Safety Committee and NPPs Site Selection Committee (1975-1978). He joined the IAEA Department of Research and Isotopes, Division of Research and Laboratories In 1978. In 1982, he was transferred to the Department of Safeguards as an inspector. In 1984, he was appointed Safeguards Evaluator and Unit Head for Reactor- Type Facilities (RTFs). From 1984 through 1996 he was senior safeguards analyst and inspector. He prepared the Safeguards Implementation Report for RTFs. He carried out hundreds of safeguards inspections in all types of nuclear facilities worldwide. He retired from the IAEA in 1998. Necmi Dayday shared in the Nobel Peace Prize 2005 awarded to the IAEA. In 2006, he received the prestigious TASAM (Turkish Asian Strategic Research Center) Award for “Scientist with Strategic Vision”. He has been Board Member and Project Manager at TASAM since 2007. He has been the Founding President and Board Chairman NUTEK Inc. Consulting since July 2014. During his long career, he organized and actively participated in national and international: conferences; seminars; summer schools; training courses, on many aspects of nuclear energy.



Patricia WIELAND
Head of World Nuclear University

Patricia Wieland is Head of the World Nuclear University (WNU) since January 2014, running several international leadership development programmes. Previously Deputy Director and Head of Infrastructure and Management of the Nuclear Engineering Institute, a nuclear research centre in Brazil, where she started as radiation protection officer in 1981. She held positions at the Brazilian Commission of Nuclear Energy such as: Head of Regulations Division, General Coordinator of Human Resources and Coordinator of Nuclear Installations Licensing. She was a staff member of the Department of Nuclear Safety of the International Atomic Energy Agency (IAEA) in Vienna for almost six years, developing international recommendations on nuclear communications and training. PhD in Industrial Engineering from Rio de Janeiro, Brazil.

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Shah Nawaz AHMAD
World Nuclear Association (WNA)

Shah Nawaz Ahmad is the Senior Adviser, World Nuclear Association (WNA), London. He is a graduate in Electrical Engineering and has post-graduate qualifications in Nuclear Engineering as well as Systems Management. He has held senior positions with the Nuclear Power Corporation of India Ltd (NPCIL), Electronics Corporation of India Ltd (ECIL), & World Association of Nuclear Operators, (WANO) Tokyo. He has also worked for the International Atomic Energy Agency & Atomic Energy of Canada Ltd (AECL).



Stefano MONTI
International Atomic Energy Agency (IAEA) Nuclear Energy (NE) Department

Stefano Monti is currently the Head of the Nuclear Power Technology Development Section of the International Atomic Energy Agency (IAEA) in Vienna. From May 2011 to January 2015 he covered the position of IAEA Team Leader for Fast Reactor and ADS Technology Development. For almost 35 years he has been working on several national and international projects and programmes on advanced nuclear systems. Before joining the IAEA, as Director of Research at ENEA (Italy), Stefano was Head of the Division Reactor and Fuel Cycle Safety and Security Methods, President of the SIET company carrying out safety tests for the licensing of advanced GEN-III and SMR systems, and scientific coordinator of the Italian R&D programme on nuclear fission.

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Timur GABYASH

Project Manager in New BOO Projects Division, REIN JSC

Mr. Gabyash was born in 1976 in Moscow. He graduated from the Moscow Institute of Technology in 1998 (Faculty of Economics), got his MBA in International Finance & Banking in 2005. In 1999, he enrolled the Central Research Institute for Economics and Management of the Ministry of Nuclear Industry of Russia (now State Corporation ROSATOM). He worked there on the financial and strategic assessment of the transformation of the Ministry into the State Corporation.

Between 2003 and 2006, he worked in the mining industry on the development of gold and silver mining assets in Eastern Siberia and Mongolia. In 2006, he joined the ROSATOM Mining Division, JSC Atomredmetzoloto and participated in the development of ROSATOM’s mineral resource base through the establishment of JV’s and acquisition of the mining assets in Eastern Siberia, Mongolia, Kazakhstan, Kyrgyzstan, Namibia, Tanzania, South Africa, USA and Canada. In 2013, he joined the REIN JSC team and is currently working on the implementation of AKKUYU NPP and HANHIKIVI NPP. As part of ROSATOM State Nuclear Corporation, REIN JSC manages two new nuclear build projects – in Turkey and Finland.

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PARTICIPATION FEE

NOTE: Participation to 20 hours of the educational part of the event is free of charge.

NUTEK Energy, Industry, Trade and Consulting Inc. | nutekinc.biz/en

NUTEK (National Nuclear Technology) is the first domestic and national visionary private consultancy to provide consultancy services on energy and some advanced technology, particularly nuclear energy. Established in 2014 by experts with extensive knowledge and expertise accumulated over many years to fill the gap in the private sector and provide significant services for the interests of the country in this critical area directly affecting the survival and independence of Turkey's future in the energy field. NUTEK is a technology company that has the capacity of planning, organizing and managing comprehensive works with its high-level expert staff who have experience in national and international nuclear energy, science and technology institutions. NUTEK has access to large number of domestic and foreign nuclear professional networks.

NUTEK provides highest level of consulting and expertise services in areas such as: Project Development for Investors; Management; Development of Education and Human Resources; Quality Assurance and Quality Control; Engineering, Energy Law; Information Technology; Data Storage and Data Processing; Software Development; Cyber Security and Space Technologies to the investors with its competent staff in nuclear and related subjects, domestic and foreign expert partners.

TURKISH ATOMIC ENERGY AUTHORITY (TAEK)

Please visit below link for information

www.taek.gov.tr/en/

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TASAM WORLD Academy and Innovation Group | tasam.org/en

TASAM WORLD is a community of specialized institutions, that develops national and international innovative projects & programs and gives educations in priority of strategic vision; and it includes institutions, networks and platforms which were developed and institutionalized on various scales on the background of intellectual and academic activities of TASAM (Turkish Asian Center for Strategic Studies), which started its activities in 2002 as a think tank. The group continues the management of many networks, such as **Turkey Nuclear Technology Platform** and Think Tanks Dialogue of Turkey. Energy, Water and Food Institute, Education Industry and Technology Institute, Innovation and Human Development Institute, Environment and Brand City Institute and National Defense and Security Institute are also active institutes within TASAM.

Global Civil Diplomacy Construction Program that mobilizes civilian capacity on a global scale with all channels in many areas such as Energy Diplomacy, Science Diplomacy and Security Diplomacy, likewise **Turkey's Nuclear Power Program 2030**, Strategic Vision Development Program and the Strategic Dialogue Program are carried out successfully in either our country or other countries by TASAM WORLD for many years. TASAM WORLD conducts nuclear technology study tours, symposiums, workshops and international congresses within the scope of the Nuclear Technology for Sustainable Development Project launched in 2006. It successfully continues the studies of “Energy and Nuclear Technology” as a Strategic Locomotive Sector in the content of “Turkey's Strategic Vision 2023 and Turkey 2053 projects.

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